

SHRADER CANADA **RS325UEC
Red Stallion Upper Engine Cleaner****Section 1: Chemical Product and Company Identification**

Manufacturer or Supplier Shrader Canada Limited
 Name:
 Address: 830 Progress Court, Oakville, Ontario L6L 6K1
 Date of MSDS Preparation: 02/18/2009
 Revision: 4
 Product Use: Combustion chamber cleaner.
 Chemical Family: Complex mixture

Section 2: Composition/Information on Ingredients

Component Name:	%	LD50 and LC50	ACGIH TWA	Ecotoxicity - Aquatic Toxicity
Petroleum Solvent (C8-C10) 64742-95-6	30-60	Inhalation LC50 Rat:3400 ppm 4h Oral LD50 Rat:8400 mg/kg Dermal LD50 Rabbit:2000 mg/kg Inhalation LC50 Rat:5.2 mg/L 4h	Not available	Not Available
Petroleum Gases, Liquefied, Sweetened 68476-86-8	7-13	Not Available	Not available	Not Available
Oleic Acid 112-80-1	5-10	Oral LD50 Rat:74 g/kg	Not available	LC50 (96 h) fathead minnow: 205 mg/L. Cond: static
Methylisobutyl Carbinol 108-11-2	3-7	Oral LD50 Rat:2590 mg/kg Dermal LD50 Rabbit:2870 mg/kg Inhalation LC50 Rat:16 mg/L 4h Inhalation LC50 Rat:3776 ppm 4h	= 25 ppm TWA =40 ppm STEL Skin - potential significant contribution to overall exposure by the cutaneous route	LC50 (24 h) goldfish: 360 mg/L. Cond: LC50 (96 h) water flea: 143.17 mg/L
2-Butoxyethanol 111-76-2	3-7	Inhalation LC50 Rat:2.21 mg/L 4h Dermal LD50 Rabbit:220 mg/kg Dermal LD50 Rat:2270 mg/kg Inhalation LC50 Rat:450 ppm 4h Oral LD50 Rat:470 mg/kg	= 20 ppm TWA	LC50 (24 h) goldfish: 1650 mg/L. Cond: LC50 (96 h) bluegill: 1490 mg/L. Cond: static LC50 (24 h) water flea: 1720 mg/L
Ammonia Solution 1336-21-6	1-5	Oral LD50 Rat:350 mg/kg	Not available	LC50 (96 h) fathead minnow: 8.2 mg/L. Cond: LC50 (48 h) bluegill: 0.024 mg/L. Cond: LC50 (24 h) rainbow trout: 0.008 mg/L. Cond: EC50 (48 h) water flea: 0.66 mg/L

Section 3: Hazards Identification

Ingestion:	Ingestion of small amounts during normal handling are not likely to cause injury. Larger amounts may cause effects similar to those described under inhalation. Ingestion of large amounts may cause stomach irritation. Symptoms include nausea, vomiting and diarrhea. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.
Inhalation:	High concentrations may cause respiratory irritation and central nervous system depression with results ranging from dizziness and headache to unconsciousness.
Eye Contact:	Direct contact causes eye irritation. Symptoms will include pain, redness and tearing. Vapours will irritate the eyes.
Chronic Effects:	Chronic overexposure to 2-Butoxyethanol may cause liver, kidney and blood damage. Reports have associated repeated and prolonged occupational overexposure to various organic solvents with internal organ, brain and nervous system damage.

Section 4: First Aid Measures

Ingestion:	Do not induce vomiting. Drink two glasses of water. Call a physician.
Skin Contact:	Remove contaminated clothing and launder before reuse. Wash with soap and water. Seek medical attention if irritation persists.
Inhalation:	If affected, remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention.
Eye Contact:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.
Additional Information:	The main hazard following ingestion is aspiration of the liquid into the lungs during subsequent vomiting. Only if more than 2.0 mL/kg body weight has been ingested should vomiting be induced, with supervision. If symptoms such as convulsions or unconsciousness occur before vomiting, gastric lavage should be considered. Exposure may increase myocardial irritability. Cardiac arrhythmia has been reported. Use sympathomimetic drugs with caution.

Section 5: Fire Fighting Measures

Flash Point (°C):	44 TCC (Liquid Component)
Flame Projection:	15 to 100cm. No flashback.
NEPA Classification:	Aerosol, Level 2
Lower Explosive Limit:	Not Available
Upper Explosive Limit:	Not Available

Autoignition Temperature (°C):
Not Available

Sensitivity to Mechanical Impact:
Contents under pressure. Protect against physical damage.

Conditions of Flammability:
Flammable. Contents under pressure. Containers can build up pressure if exposed to heat (fire). Vapours are heavier than air and may travel or be moved along the ground to an ignition source at locations distant from material handling. Sprayed product will project a flame on contact with an ignition source.

Sensitivity to Static Discharge:
Take precautionary measures against static discharges.

Hazardous Combustion:
Carbon dioxide, carbon monoxide and other unidentified organic compounds.

Extinguishing Media:

Alcohol foam or water fog for large fires. Carbon dioxide or dry chemical for small fires. Use water spray to cool fire exposed containers and prevent bursting. Do not use a direct stream of water.

Section 6: Accidental Release Measures**Leak or Spill Procedures:**

Contain spilled material. Avoid contamination of natural waterways. Wear suitable protective clothing. Follow applicable explosion and fire precautions during the response. Stop the spill at the source when safe to do so. For large spills, dike the area to prevent spreading. Pump excess to a salvage container. Absorb residues and small spills with a non-flammable absorbent material and collect adsorbate for disposal. For large quantities refer to the environmental ministry.

Section 7: Handling and Storage**Handling Procedures:**

Flammable. Keep away from heat, spark, flame and other sources of ignition. Contents under pressure. Use with adequate ventilation. Avoid breathing vapours. Use good personal hygiene. Avoid smoking, eating and drinking during use. Wash with soap and water after handling. Containers of this material may contain hazardous residues when emptied. Do not cut, weld, drill or grind on or near this container.

Storage Requirements:

Store in a cool, dry, well-ventilated area. Storage temperatures should not exceed 40°C. Keep from freezing. Store at ambient temperatures above 10°C. Keep away from children.

Section 8: Exposure Controls / Personal Protection

Respiratory: Not normally required. If the TLV is exceeded, a NIOSH-approved respirator is advised.

Gloves: Neoprene. Nitrile gloves.

Eyewear: Safety glasses. Contact lenses should not be worn. They may contribute to the severity of the injury.

Clothing: Sufficient clothing to prevent skin contact.

Ventilation: Sufficient mechanical ventilation to maintain exposures below the TLV. General mechanical ventilation is not recommended as the sole means of controlling exposure. Make-up air should always be supplied to balance air exhausted.

Other protective equipment: Emergency showers and eyewash facilities should be nearby. The selection of personal protective equipment will vary depending on the conditions of use.

Section 9: Physical and Chemical Properties

Physical State: Aerosol

Odour: Hydrocarbon odour. Ammonia.

Appearance: Amber.

Evaporation Rate: Not Available

Vapour Density (Air=1): > 1

VOC %: 62

pH: 9.0 to 10.5 at 5% volume

Coefficient of water: Not Available

Solubility in Water: Partial

Specific Gravity (H2O=1): 0.89 to 0.922 at 15°C

Viscosity: < 14cSt cSt @ 40°C

Section 10: Stability and Reactivity**Conditions of Instability:**

Stable at ambient temperatures and pressures.

Hazardous Polymerization:

Hazardous polymerization will not occur.

Hazardous Decomposition:

See hazardous combustion products.

Incompatible Materials:

Avoid strong oxidizers such as HOOH, HNO₃, and oleum.

Conditions of Reactivity:

Avoid excessive heat, sparks and open flame.

Section 11: Toxicological Information

Irritancy of Product:

Moderately irritating to eyes and skin.

Sensitization to product:

Contains no known skin or respiratory sensitizers.

Carcinogenicity:

No components are listed as carcinogens by ACGIH, IARC, OSHA, or NTP.

Reproductive Effects:

Animal studies indicate that 2-Butoxyethanol does not cause reproductive toxicity.

Teratogenicity:

In laboratory animal teratology studies on 2-Butoxyethanol, no embryotoxicity or lethality was observed without maternal effects (concentrations 100-300 ppm). These studies do not establish a risk of birth defects in humans.

Mutagenicity:

In-vitro mutagenicity tests for 2-Butoxyethanol have been negative.

Synergistic Products:

Not Available

Section 12: Ecological Information

Environmental:

Toxic to aquatic life. Aromatic hydrocarbons may be bioaccumulative but they have no food chain concentration potential. See composition/information on ingredients.

Biodegradability:

Not available.

Section 13: Disposal Considerations

Waste Disposal:

Contents under pressure. Do not puncture, incinerate or expose to heat even when empty. Reuse or recycling should be given priority over disposal under any circumstances. Do not dump unused contents into sewers, on the ground or into any body of water. Dispose of in accordance with municipal, provincial and federal regulations.

Section 14: Transportation Information

Road shipment:

AEROSOLS, Class 2.1, UN1950, ERG #126.

Marine shipment:

UN1950, AEROSOLS, Class 2.1, EmS# F-D, S-U.

Flash Point (°C):

44 TCC (Liquid Component)

Air Shipment:

Aerosols, Flammable, Class 2.1, UN1950, PI Y203/203.

Exemption:

LTD QTY exemptions may be used if product is packaged in accordance with Schedule 1 of TDGR (Clear Language).

Product may be reclassified for air transportation if packaged in accordance to IATA regulations (i.e. Consumer Commodity, Class 9, ID 8000).

Section 15: Regulatory Information

WHMIS: A B5 D2B

CEPA: All components are listed on the Domestic Substances List (DSL).

CPR Compliance: This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

Section 16: Other Information

HMIS Rating: 241B
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